



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,907	01/30/2004	Sung-Hec Hwang	1793.1155	2240
<div>49455 7590 07/26/2007 STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005</div>				
			<div>EXAMINER ALPHONSE, FRITZ</div>	
			<div>ART UNIT 2112</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 07/26/2007</div>	<div>DELIVERY MODE PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/766,907	Applicant(s) HWANG ET AL.	
	Examiner Fritz Alphonse	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 8-17 is/are rejected.
- 7) ☒ Claim(s) 3,4,7 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



GUY LAMARRE
PRIMARY EXAMINER

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>21, 25</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

0.1 This Office Action is in response to the amendment filed on 5/14/2007. Claims 1-18 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-6, 8-10, 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (U.S. Pat. No. 5,696,774) in view of Arai (U.S. Pat. No. 5,757,824) and further in view of Applicant admitted Prior Art (APA).

As to claim 1, Inoue (figs. 13) teaches an apparatus for generating an error flag for a data frame including a plurality of ECC data blocks, wherein each ECC data block is located between frame-sync data and BIS data or between two of the BIS data comprising information that is inserted in order to indicate a generation of a burst error, the apparatus including a BIS (Burst Indicator Subcode) error flag memory which stores a BIS error flag for the at least one data block (fig. 29; col. 31, lines 64 through col. 32 line 20).

Inoue does not explicitly disclose an error flag generator, which generates one of the error flag indicating an error existence/absence for a corresponding one of the ECC (Error-Correction Coding) data blocks with reference to the frame-sync error information stored in the frame-sync error memory and the BIS error flag stored in the BIS error flag memory.

However, in the same field of endeavor, Arai (fig. 17) shows a code error correction apparatus including an error flag generator (57), which generates an error flag indicating an error existence/absence for ECC (Error-Correction Coding) data (col. 12, lines 66 through col. 13 line 6).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to incorporate the error flag generator (57) as taught by Arai in the digital signal recording device, as disclosed by Inoue. Doing so would provide a configuration of an error correction code and a decoding apparatus, which is highly capable of error correction without great quality deterioration of a reproduction signal even when there are many code errors (col. 2, lines 16-20).

In addition, as to claim 1, Inoue does not explicitly disclose a frame-sync error memory which stores frame-sync error information for at least one data block. However, the limitation is obvious and very well known in the art, as evidenced by APA (see specification [0006-0007], fig. 1).

As to claims 2, 6 and 9, Inoue does not explicitly disclose the frame-sync error memory stores frame-sync error information corresponding to at least two of the ECC data blocks. However, the limitation is disclosed by APA (see specification [0006-0007], fig. 1).

As to claim 10, Inoue discloses an apparatus, wherein the BIS error flag memory stores BIS error flag corresponding to at least two data blocks (col. 40, lines 15-35). In addition, APA (fig. 1) shows the corresponding data blocks.

As to claim 5, method claim 5 corresponds to apparatus claim 1; therefore, it is analyzed as previously discussed in claim 1 above.

As to claim 8, the claim differs from claim 1 by the additional limitation “a frame-sync detector, outputting frame-sync error information indicating an existence/absence of an error for frame sync-data of frames forming the ECC data blocks.” However, the limitation is clearly disclosed by APA (see specification [0006-0007], fig. 1).

As to claims 11-17, the claims have substantially the limitations of claims 2, 6 and 9; therefore, they are analyzed as previously discussed in claims 2, 6 and 9 above.

Allowable Subject Matter

3. Claims 3-4, 7 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 5/14/2007 have been fully considered but they are not persuasive.

The Applicant contends, “ Neither Inoue nor Arai teach or suggest, individually or in combination, "an apparatus generating error flags for a data frame including a plurality of ECC (Error-Correction Coding) data blocks, wherein each ECC data block is located between frame-sync data and BIS (Burst Indicator Subcode) data or between two of the BIS data,”

The Examiner disagrees and asserts that Inoue (fig. 29; col. 31, lines 64 through col. 32 line 20) discloses an apparatus including a BIS (Burst Indicator Subcode) error flag memory which stores a BIS error flag for the at least one data block (fig. 29; col. 31, lines 64 through col. 32 line 20). In addition, APA (see specification [0006-0007], fig. 1) clearly discloses a frame-sync error memory which stores frame-sync error information for at least one data block.

Art Unit: 2112

The Applicant contends, "Neither Inoue nor Arai teach or suggest, individually or in combination, the operation of "generating frame-sync error information for at least one Error Correction Coding (ECC) data block located between frame- sync data and BIS (Burst Indicator Subcode) data or between two of the BIS data, the BIS data comprising information that is inserted in order to indicate a generation of a burst error, using the reproduced digital signal."

The Examiner disagrees because Inoue (fig. 29; col. 31, lines 64 through col. 32 line 20) discloses an apparatus including a BIS (Burst Indicator Subcode) error flag memory which stores a BIS error flag for the at least one data block (fig. 29; col. 31, lines 64 through col. 32 line 20). In addition, Arai (fig. 17) shows a code error correction apparatus including an error flag generator (57), which generates an error flag indicating an error existence/absence for ECC (Error-Correction Coding) data (col. 12, lines 66 through col. 13 line 6). Arai discloses error flag generator (col. 2, lines 21-26).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

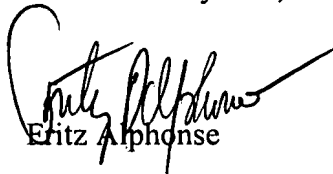
Art Unit: 2112

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is 571-272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571-272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Fritz Alphonse

Art Unit 2112

July 23, 2007



GUY LAMARRE
PRIMARY EXAMINER